

10/084313

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[First Hit](#)[Clear](#)[Generate Collection](#)[Print](#)[Fwd Refs](#)[Bkwd Refs](#)[Generate OACS](#)**Search Results - Record(s) 1 through 4 of 4 returned.**☐ 1. Document ID: US 20060265234 A1

L1: Entry 1 of 4

File: PGPB

Nov 23, 2006

PGPUB-DOCUMENT-NUMBER: 20060265234

PGPUB-FILING-TYPE:

DOCUMENT-IDENTIFIER: US 20060265234 A1

TITLE: Mission-specific vehicle capacity constraints in transportation planning

PUBLICATION-DATE: November 23, 2006

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY
Peterkofsky; Roy I.	San Francisco	CA	US
Budaraju; Hema	Fremont	CA	US
Yang; Mei	Albany	CA	US
Sun; Rongming	Hayward	CA	US

US-CL-CURRENT: 705/1

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw D
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☐ 2. Document ID: US 20060095175 A1

L1: Entry 2 of 4

File: PGPB

May 4, 2006

PGPUB-DOCUMENT-NUMBER: 20060095175

PGPUB-FILING-TYPE:

DOCUMENT-IDENTIFIER: US 20060095175 A1

TITLE: Method, system, and apparatus for monitoring vehicle operation

PUBLICATION-DATE: May 4, 2006

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY
deWaal; Thomas	Calgary		CA
Heinrichs; Arthur Douglas	Calgary		CA

US-CL-CURRENT: 701/33; 340/438, 701/29, 701/35

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw. De
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☐ 3. Document ID: US 20040073440 A1

L1: Entry 3 of 4

File: PGPB

Apr 15, 2004

PGPUB-DOCUMENT-NUMBER: 20040073440

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040073440 A1

TITLE: System for vehicle assignment and pickup

PUBLICATION-DATE: April 15, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY
Garbers, Jeffrey	Roswell	GA	US
Vestal, William	Avondale Estates	GA	US

US-CL-CURRENT: 705/1; 705/5

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw. De
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☐ 4. Document ID: US 6408276 B1

L1: Entry 4 of 4

File: USPT

Jun 18, 2002

US-PAT-NO: 6408276

DOCUMENT-IDENTIFIER: US 6408276 B1

TITLE: Crew optimization engine for repair of pairings during irregular airline operations

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw. De
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Search Results - Record(s) 1 through 10 of 26 returned.

☐ 1. Document ID: US 20030167109 A1

L13: Entry 1 of 26

File: PGPB

Sep 4, 2003

PGPUB-DOCUMENT-NUMBER: 20030167109

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030167109 A1

TITLE: Methods and systems for routing mobile vehicles

PUBLICATION-DATE: September 4, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY
Clarke, Michael D. D.	Irving	TX	US
Smith, Barry C.	Flower Mound	TX	US

US-CL-CURRENT: 701/3; 701/202

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWWC	Draw. D
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☐ 2. Document ID: US 7151995 B2

L13: Entry 2 of 26

File: USPT

Dec 19, 2006

US-PAT-NO: 7151995

DOCUMENT-IDENTIFIER: US 7151995 B2

TITLE: Method for the prediction of air traffic events, especially for assistance in decision-making for airlines and airports

PRIOR-PUBLICATION:

DOC-ID	DATE
US 20040039518 A1	February 26, 2004

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWWC	Draw. D
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☐ 3. Document ID: US 7120537 B2

L13: Entry 3 of 26

File: USPT

Oct 10, 2006

US-PAT-NO: 7120537
DOCUMENT-IDENTIFIER: US 7120537 B2

TITLE: System and method for characterizing traffic behavior at an airport

PRIOR-PUBLICATION:

DOC-ID	DATE
US 20050085992 A1	April 21, 2005

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMMC	Drawings
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☐ 4. Document ID: US 7065443 B2

L13: Entry 4 of 26 File: USPT Jun 20, 2006

US-PAT-NO: 7065443
DOCUMENT-IDENTIFIER: US 7065443 B2

TITLE: System and method for estimating aircraft flight delay

PRIOR-PUBLICATION:

DOC-ID	DATE
US 20030195693 A1	October 16, 2003

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMMC	Drawings
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☐ 5. Document ID: US 7006903 B2

L13: Entry 5 of 26 File: USPT Feb 28, 2006

US-PAT-NO: 7006903
DOCUMENT-IDENTIFIER: US 7006903 B2

**** See image for Certificate of Correction ****

TITLE: Method and system for routing mobile vehicles and scheduling maintenance for those vehicles related application

PRIOR-PUBLICATION:

DOC-ID	DATE
US 20030167110 A1	September 4, 2003

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMMC	Drawings
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☐ 6. Document ID: US 6912461 B2

L13: Entry 6 of 26 File: USPT Jun 28, 2005

US-PAT-NO: 6912461
DOCUMENT-IDENTIFIER: US 6912461 B2

TITLE: Multiple approach time domain spacing aid display system and related techniques

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWMC	Draw D
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☐ 7. Document ID: US 6789011 B2

L13: Entry 7 of 26

File: USPT

Sep 7, 2004

US-PAT-NO: 6789011
DOCUMENT-IDENTIFIER: US 6789011 B2

TITLE: Method and system for allocating aircraft arrival/departure slot times

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWMC	Draw D
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☐ 8. Document ID: US 6606553 B2

L13: Entry 8 of 26

File: USPT

Aug 12, 2003

US-PAT-NO: 6606553
DOCUMENT-IDENTIFIER: US 6606553 B2

TITLE: Traffic flow management method and system for weather problem resolution

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWMC	Draw D
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☐ 9. Document ID: US 6584400 B2

L13: Entry 9 of 26

File: USPT

Jun 24, 2003

US-PAT-NO: 6584400
DOCUMENT-IDENTIFIER: US 6584400 B2

TITLE: Schedule activated management system for optimizing aircraft arrivals at congested airports

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWMC	Draw D
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☐ 10. Document ID: US 6580998 B2

L13: Entry 10 of 26

File: USPT

Jun 17, 2003

US-PAT-NO: 6580998
DOCUMENT-IDENTIFIER: US 6580998 B2

TITLE: System and method for estimating aircraft flight delay

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWMC	Draw. Doc
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Terms	Documents
L12 and (701/3 701/202 701/120 705/7 705/8 705/9).ccls.	26

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☐ 11. Document ID: US 6415219 B1

L13: Entry 11 of 26

File: USPT

Jul 2, 2002

US-PAT-NO: 6415219

DOCUMENT-IDENTIFIER: US 6415219 B1

** See image for Certificate of Correction **

TITLE: Technique of real-time tracking and management of land-based vehicles of the airport

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWMC	Draw De
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☐ 12. Document ID: US 6408276 B1

L13: Entry 12 of 26

File: USPT

Jun 18, 2002

US-PAT-NO: 6408276

DOCUMENT-IDENTIFIER: US 6408276 B1

TITLE: Crew optimization engine for repair of pairings during irregular airline operations

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWMC	Draw De
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☐ 13. Document ID: US 6314361 B1

L13: Entry 13 of 26

File: USPT

Nov 6, 2001

US-PAT-NO: 6314361

DOCUMENT-IDENTIFIER: US 6314361 B1

TITLE: Optimization engine for flight assignment, scheduling and routing of aircraft in response to irregular operations

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWMC	Draw De
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☐ 14. Document ID: US 6282487 B1

L13: Entry 14 of 26

File: USPT

Aug 28, 2001

US-PAT-NO: 6282487

DOCUMENT-IDENTIFIER: US 6282487 B1

TITLE: Runway reservation system

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWMC	Draw De
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☐ 15. Document ID: US 6182005 B1

L13: Entry 15 of 26

File: USPT

Jan 30, 2001

US-PAT-NO: 6182005

DOCUMENT-IDENTIFIER: US 6182005 B1

TITLE: Airport guidance and safety system incorporating navigation and control using GNSS compatible methods

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWMC	Draw De
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☐ 16. Document ID: US 6122572 A

L13: Entry 16 of 26

File: USPT

Sep 19, 2000

US-PAT-NO: 6122572

DOCUMENT-IDENTIFIER: US 6122572 A

**** See image for Certificate of Correction ****

TITLE: Autonomous command and control unit for mobile platform

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWMC	Draw De
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☐ 17. Document ID: US 6076067 A

L13: Entry 17 of 26

File: USPT

Jun 13, 2000

US-PAT-NO: 6076067

DOCUMENT-IDENTIFIER: US 6076067 A

TITLE: System and method for incorporating origination and destination effects into a vehicle assignment process

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWMC	Draw De
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☐ 18. Document ID: US 6049754 A

L13: Entry 18 of 26

File: USPT

Apr 11, 2000

US-PAT-NO: 6049754

DOCUMENT-IDENTIFIER: US 6049754 A

TITLE: Method for displaying vehicle arrival management information

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMOC	Draw De
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☐ 19. Document ID: US 5974355 A

L13: Entry 19 of 26

File: USPT

Oct 26, 1999

US-PAT-NO: 5974355

DOCUMENT-IDENTIFIER: US 5974355 A

TITLE: Automatic time series pattern creating method

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMOC	Draw De
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☐ 20. Document ID: US 5867804 A

L13: Entry 20 of 26

File: USPT

Feb 2, 1999

US-PAT-NO: 5867804

DOCUMENT-IDENTIFIER: US 5867804 A

TITLE: Method and system for the control and management of a three dimensional space envelope

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMOC	Draw De
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Search Results - Record(s) 21 through 26 of 26 returned.

☐ 21. Document ID: US 5740047 A

L13: Entry 21 of 26

File: USPT

Apr 14, 1998

US-PAT-NO: 5740047

DOCUMENT-IDENTIFIER: US 5740047 A

TITLE: GNSS based, seamless, multi-dimensional control and management system for vehicles operating in a multi-dimensional environment

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWMC	Draw D
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☐ 22. Document ID: US 5732384 A

L13: Entry 22 of 26

File: USPT

Mar 24, 1998

US-PAT-NO: 5732384

DOCUMENT-IDENTIFIER: US 5732384 A

TITLE: Graphical user interface for air traffic control flight data management

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWMC	Draw D
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☐ 23. Document ID: US 5659475 A

L13: Entry 23 of 26

File: USPT

Aug 19, 1997

US-PAT-NO: 5659475

DOCUMENT-IDENTIFIER: US 5659475 A

TITLE: Electronic air traffic control system for use in airport towers

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWMC	Draw D
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☐ 24. Document ID: US 5548515 A

L13: Entry 24 of 26

File: USPT

Aug 20, 1996

US-PAT-NO: 5548515

DOCUMENT-IDENTIFIER: US 5548515 A

**** See image for Certificate of Correction ****

TITLE: Method and system for airport control and management

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMOC	Draw De
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☐ 25. Document ID: US 5270921 A

L13: Entry 25 of 26

File: USPT

Dec 14, 1993

US-PAT-NO: 5270921

DOCUMENT-IDENTIFIER: US 5270921 A

**** See image for Certificate of Correction ****

TITLE: Virtual fare methods for a computerized airline seat inventory control system

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMOC	Draw De
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☐ 26. Document ID: US 5265023 A

L13: Entry 26 of 26

File: USPT

Nov 23, 1993

US-PAT-NO: 5265023

DOCUMENT-IDENTIFIER: US 5265023 A

**** See image for Certificate of Correction ****

TITLE: Method for issuing adaptive ground delays to air traffic

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMOC	Draw De
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Documents

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|705/8 |705/9).ccls.

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United States Patent**6,049,754****Beaton , et al.****April 11, 2000**

Method for displaying vehicle arrival management information**Abstract**

A method for displaying vehicle arrival management information is provided by display (200). Display (200) includes an arrival slot display area (222) which is bounded by a relative time scale (214) defining a Y axis and an actual time scale (216) defining an X axis. A multiplicity of symbols (226) representing arrival slots extends from the origin of the display. When used in an aircraft arrival management application, symbols (228) represent aircraft in flight, and symbols (230) represent aircraft still on the ground and whose flight plan is proposed. Those symbols (228, 230) are located on the display at the appropriate estimated arrival time, assigned slot time coordinates corresponding with a respective arrival time slot represented by a respective arrival slot symbol (226). To further aid in controlling the arrival traffic, each of the in-flight aircraft symbols (228) for aircraft associated with the user includes an ETA envelope (244) associated with the in-flight aircraft symbol (228), the symbol (228) being located at coordinates which represent the estimated ETA and slot assignment of the aircraft. Aircraft which have been assigned to an arrival slot, but which have not yet taken off, are indicated by a symbol (230) which is located at coordinates representing the estimated ETA and slot assignment for that flight.

Inventors: **Beaton; Emily K.** (Gaithersburg, MD), **Fisher; Vick G.** (Arlington, VA), **Miller; Shane L.** (Reston, VA), **Nardelli, III; Joseph A.** (Herndon, VA), **Simmons; Rodney A.** (Fremont, CA)

Assignee: **The Mitre Corporation** (McLean, VA)

Appl. No.: **09/050,471**

Filed: **March 31, 1998**

Current U.S. Class: **701/204 ; 340/990; 340/995.26; 701/120; 701/121; 701/122; 701/123; 701/200**

Current International Class: **G01C 21/00 (20060101); G08G**

<http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO1&Sect2=H...> 1/17/2007

1/123 (20060101); G08G 5/00 (20060101)

Field of Search:340/974,973 395/129,142 701/120,204
364/439-444,461

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U.S. Patent Documents

<u>5257347</u>	October 1993	Busbridge et al.
<u>5265023</u>	November 1993	Sokkappa
<u>5420582</u>	May 1995	Kubbat et al.
<u>5659475</u>	August 1997	Brown
<u>5677841</u>	October 1997	Shiomi et al.
<u>5742508</u>	April 1998	Kasui et al.
<u>5941929</u>	August 1999	Shiomi et al.

Primary Examiner: Cuchlinski, Jr.; William A.*Assistant Examiner:* Mancho; Ronnie

United States Patent**6,408,276****Yu , et al.****June 18, 2002**

Crew optimization engine for repair of pairings during irregular airline operations

Abstract

An automated real time crew optimization engine for repairing crew problems including open flights, open pairings, and broken crews in airline operations, which generates multiple solutions in conformance with solution constraints by preprocessing the crew problems to generate potential solutions, and optimizing the potential solutions to provide optimized solutions. The preprocessing includes the use of self-connection methods, skipping-leg methods, and an extend-out-broken crew method. Potential solutions are generated by swap methods including a one-way swap method, a two-way swap method, and a three-way swap method. A depth-search-first algorithm and a shortest path algorithm are applied to the potential solutions to find optimal solutions.

Inventors: **Yu; Gang** (Austin, TX), **Song; Gao** (Austin, TX)

Assignee: **CALEB Technologies Corp.** (Austin, TX)

Appl. No.: **09/364,156**

Filed: **July 30, 1999**

Current U.S. Class: 705/7 ; 701/202; 705/8; 705/9

Current International Class: G06Q 10/00 (20060101)

Field of Search: 705/7,8,9 703/6,7 701/202 340/825

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U.S. Patent Documents

6253147

June 2001

Greenstein

Foreign Patent Documents

1072991

Jul., 2001

EP

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- Mark Song, Guo Wei, and Gang Yu, "A Decision Support Framework For Crew Management During Airline Irregular Operations", Operations Research In The Airline Industry, pp. 259-286, Kluwer Academic Publishers (1998), United States..

United States Patent**6,314,361****Yu , et al.****November 6, 2001**

Optimization engine for flight assignment, scheduling and routing of aircraft in response to irregular operations

Abstract

An automated, real-time decision support system for reassigning, rescheduling, and rerouting aircraft in response to flight operation disruptions, in which sets of optimal solutions are provided through use of evaluation statistics to assist operations management in selecting the optimal solution best conforming to operational constraints and user requirements. Solutions are generated through the execution of unary operations, binary operations, three-way operations, and reverse binary operations on grounded aircraft routes, available aircraft routes, and phantom routes which implicitly cancelled flights. Solutions are evaluated for feasibility with respect to operations constraints and user requirements. Marginal value calculators are used to differentiate feasible solutions and identify optimal solutions. The marginal value calculators are dynamic, hierarchical calculators that permit use of multiple, prioritized, and weighted route and operation attributes in comparing solution values. Marginal value calculators are selected by means of a decision tree.

Inventors: **Yu; Gang** (Austin, TX), **Arguello; Michael Francis** (Austin, TX)

Assignee: **CALEB Technologies Corp.** (Austin, TX)

Appl. No.: **09/364,157**

Filed: **July 30, 1999**

Current U.S. Class: **701/120** ; 701/117; 701/202; 703/13; 703/22;
705/5; 705/6; 718/100

Current International Class: G06Q 10/00 (20060101); G08G
5/00 (20060101)

Field of Search: 701/120,200,202 703/13,22 705/5,6,8 707/1
709/100

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U.S. Patent Documents

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<u>4862357</u>	August 1989	Ahlstrom et al.
<u>4943919</u>	July 1990	Aslin et al.
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<u>5270920</u>	December 1993	Pearse et al.
<u>5270921</u>	December 1993	Hornick
<u>5570283</u>	October 1996	Shoolery
<u>5652867</u>	July 1997	Barlow et al.
<u>5797113</u>	August 1998	Kambe
<u>5797127</u>	August 1999	Walker
<u>5805446</u>	September 1999	Hatakeyama
<u>5897620</u>	April 1999	Walker
<u>5913912</u>	June 1999	Nishimura

Foreign Patent Documents

0743580A1	Nov., 1996	EP
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